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| 10/538,626      | 06/10/2005  | Alexander Cornelis Geerlings | NL 021285           | 8943             |

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| EXAMINER |
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AHMED, HAMDY S

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| ART UNIT | PAPER NUMBER |
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2188

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05/07/2009

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

|                              |                                      |   |  |
|------------------------------|--------------------------------------|---|--|
| <b>Office Action Summary</b> | <b>Application No.</b><br>10/538,626 | <b>Applicant(s)</b><br>GEERLINGS ET AL. |  |
|                              | <b>Examiner</b><br>HAMDY S. AHMED    | <b>Art Unit</b><br>2188                 |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 04 March 2009.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06/10/2005 is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

**DETAILED ACTION**

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Okazaki et al (US 6,424,606 B1, Okazaki hereinafter), in view of Kimura (patent No: 4,831,449, Kimura hereinafter).

As to claims 1 and 17 Okazaki teaches a method of operating a storage device sensitive to vibrations in an environment with a source of vibrations (e.g., see abstract 1-10 and column 2, lines 12-24), characterized in that the method comprises the following acts: measuring the performance of the storage device (e.g., see column 3, lines 37-39 "measuring the displacement of the pickup head assembly with tracking disabled to determine a vibration value"), and when the measured performance of the storage device decreases below a predetermined level taking action to reduce the influence of vibrations generated by the source of vibrations (e.g., see column 10, lines 16-27 "When the vibration value measured at resonance is greater than the predetermined vibration value limit, then the speed of operation is set 470 to low-speed mode, and the drive 100 is then operational 490 at the low speed. However, when

Art Unit: 2188

the vibration value measured at resonance is less than the predetermined vibration value limit, then the speed of rotation is set 480 to high-speed mode, and the drive 100 is set to high speed. Low-speed refers to the speed of rotation of an unbalanced disc that will not cause annoyance to the user in the form of noise and vibration. High-speed refers to the maximum rated speed of the drive”). But Okazaki doesn't teach where the performance of the storage device includes at least one of sound production, access time of the storage device, data rate, and data storage rate. However, Kimura teaches that the performance of the storage device includes at least one of sound production, access time of the storage device, data rate, and data storage rate (e.g., see column 3, lines 58-67 and column 4, lines 1-20). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the method of Okazaki by adopting the teaching of Kimura to include sound production as far as the storage performance is concerned, for the reason that such vibration, noise, or distortion may appear in the picture, particularly when the vibration are generated in the VTR5.

As to claim 2, Okazaki discloses wherein the performance of the storage device is indicated by statistics of the output sound produced as a result of accessing the storage device and wherein the action comprises an act of reducing a component of the output sound (e.g., see column 1, lines 51-65 and column 3, lines 1-21).

As to claim 3, Okazaki discloses wherein the performance of the storage device is indicated by an average bit-rate of the storage device (completing this operation reduces the vibration see column 5, lines 1-19).

As to claim 4, Okazaki discloses wherein the action comprises an act of providing a message to a user to reduce the vibrations (see column 10 lines 20-27 where after the action is taken the speed of rotation is set to high or low depending the value of the vibration the user will be annoyance in form of noise and vibration as message).

As to claims 5, Kimura discloses wherein the source of vibrations is the first loudspeaker, and the loudspeaker and the storage device comprised in the same housing (e.g., see figure 2, elements 4B and 4A are loudspeaker in the same housing); wherein the action comprises an act of switching sound reproduction from the first loudspeaker to a second loudspeaker that is remote from the storage device (e.g., see column 4, lines 31-54)

As to claim 6, Okazaki discloses wherein the source of vibrations is a loudspeaker and the action comprising an act of reducing the volume of the sound produced by the loudspeaker (see figure 2 element 14, and element 32).

As to claim 7, Okazaki discloses wherein when the measured performance decreases below the pre-determined level and the environmental temperature of the storage device is above a further pre-determined level, no action is taken (see column 10, lines 1-14 when the signal is measured under this temperature and condition there will be no action is taken).

As to claim 8 Okazaki discloses wherein (a) the housing is a consumer electronics apparatus (see column figure3 ); (b) the storage device is arranged to record an incoming stream of audio-visual data (see column 5, lines 35-51); the consumer electronics apparatus is arranged to reproduce the incoming stream of audio-visual data by means of a screen and the loudspeaker (see column 2, lines 1-19); and wherein the method comprises the following acts: storing the incoming stream of audio-visual data on a disk by the storage device; and reproducing the stored stream of audio-visual data stored on the disk by means of a screen and loudspeaker to display the incoming stream of audio-visual data instead of the stored stream of audio-visual data

As to claim 9, Okazaki discloses wherein the action to reduce the influence of vibrations generated by the source of vibrations comprises an act advising a user to display the incoming stream of audio-visual data instead of the stored stream of audio-visual data (a devising the

Art Unit: 2188

host to tray different function is equivalent to display the incoming stream of audio-visual data instead of the stored stream of audio-visual data see column 5, lines 57-67)

As to claim 10 Okazaki wherein the housing is a consumer electronics apparatus arranged to reproduce audio-visual data (see figure 3); second loudspeaker is not contained in the consumer electronics apparatus, second loudspeaker being connected to the consumer electronics apparatus; and the action comprises acts of : reducing reproduction of the audio-visual data through the first loudspeaker contained in the consumer electronics apparatus; and starting or increasing reproduction of the audio-visual data through the second loudspeaker (see column 7 lines 1-20).

As to claim 11, Kimura discloses wherein: the source of vibrations is comprised by a first apparatus and the storage device is comprised by a second apparatus; the first and the second apparatus are connected by a network link; and the action comprises an act of controlling the first apparatus by reducing the power of the vibrations caused by the source of vibrations (e.g., see column 3, lines 21-45).

As to claim 12, Okazaki discloses wherein a further lower pre-determined level replaces the pre-determined level when the measured performance of the storage device is below the predetermined level during a pre-determined period (see column 10, lines 20-34).

As to claim 13, Okazaki discloses wherein the act of measured the performance of the storage device comprises an act of keeping statistics on the performance of the storage device and the action is performed when the statistics drop below the predetermined level (see column 10, lines 7-27).

As to claim 14 Okazaki discloses wherein the vibrations are access time of the storage device, median access time of the storage device (e.g., see column 2, lines 25-40), standard

Art Unit: 2188

deviation of the access time of the storage device, and average bit-rate of the storage device (e.g., see column 6, lines 42-56).

As to claim 15, Okazaki discloses wherein the storage device is a disk drive (see column 3, lines 66-67 and column 4, lines 1-10).

As to claim 16 Okazaki discloses, wherein the action comprising an act of halting activities related to the storage device other than storage and retrieval of audio-visual data (see column 4, lines 40-65).

As to claim 18, Okazaki discloses Consumer electronics apparatus comprising: means for receiving a stream of audio-visual data ( see figure 3); (a storage device arranged to store the stream of audio-visual data on a disk; (a source of vibrations; circuit for controlling the storage device (figure 3 includes circuit to control the storage device and vibration source detector which is element 190)

As to claim 19, Okazaki wherein the source of vibrations is a disk drive arranged to spin a disk in operation (see column 3, lines 65-67 and column 4, lines 1-10).

As to claim 20, Kimura discloses wherein the source of vibrations is a loudspeaker (e.g., see column 1, lines 30-49).

### **Response to the argument**

The applicant argues that Okazaki doesn't teach measuring the performance of the storage device. However Okazaki is measuring the performance of the storage device (e.g., see column 10 lines 7-42 *"When the vibration value measured at resonance is greater than the predetermined vibration value limit, then the speed of operation is set 470 to low-speed mode, and the drive 100 is then operational 490 at the low speed. However, when the vibration value measured at resonance is less than the predetermined vibration value limit, then the speed of*

Art Unit: 2188

*rotation is set 480 to high-speed mode, and the drive 100 is set to high speed. Low-speed refers to the speed of rotation of an unbalanced disc that will not cause annoyance to the user in the form of noise and vibration. High-speed refers to the maximum rated speed of the drive.” This is equivalent to the claimed measuring the performance of the storage device since “..., the amount of unbalance in the disc corresponds to the vibration value.” and “The maximum amount of unbalance in a disc that is allowed to rotate at the maximum rated speed of the drive is determined by the amount of noise and vibration that is acceptable by the user.”).*

The applicant argues that Kimura does not disclose the performance of the storage includes sound production, access time of the storage device, data access rate, and data storage rate. However Kimura disclose the performance in column 6, lines 36-65 where “the adjusted volume of the sound from the speakers so as to achieve effective suppression of the resonant vibration of the VTR5 for avoiding the previously described image shakes”.

(Furthermore the access of the storage device happened when the producing mode with sound being simultaneously generated by the speakers 4A and 4B see column 7, lines 9-11 and column 4, lines 59-62 “when the sound emitted by the sound source 4 is a periodic sound having a substantially fixed frequency, the noise suppressing effect of active noise controller is particularly satisfactory” and also that shows that the data rate has a fixed frequency).

### **Conclusion**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to HAMDY S. AHMED whose telephone number is (571)270-1027. The examiner can normally be reached on M-TR 7:30-5:00pm and Every 2nd Friday 7:30-4:00pm.



Art Unit: 2188

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hyung Sough can be reached on 571-272-4199. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Hyung S. Sough/  
Supervisory Patent Examiner, Art Unit 2188  
05/04/09

/Hamdy S Ahmed/  
Examiner, Art Unit 2188